Title (en)

METHOD OF TREATING MUNICIPAL WASTEWATER AND PRODUCING BIOMASS WITH BIOPOLYMER PRODUCTION POTENTIAL

Title (de)

VERFAHREN ZUR BEHANDLUNG VON STÄDTISCHEM ABWASSER UND HERSTELLUNG VON BIOMASSE MIT BIOPOLYMERPRODUKTIONSPOTENZIAL

Title (fr)

PROCÉDÉ DE TRAITEMENT DES EAUX USÉES URBAINES ET DE PRODUCTION DE BIOMASSE POUVANT PRODUIRE DES BIOPOLYMÈRES

Publication

EP 2606007 A1 20130626 (EN)

Application

EP 11770516 A 20110817

Priority

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Abstract (en)

[origin: WO2012023114A1] A method of biologically treating wastewater and removing contaminants from the wastewater is disclosed. In the course of treating the wastewater, biomass is produced. In addition to removing contaminants from the wastewater, the process or method of the present invention entails enhancing the PHA accumulation potential of the biomass. Disclosed are a number of processes that are employed in a biological wastewater treatment system for enhancing PHA accumulation potential. For example, enhanced PHA accumulation potential is realized by exposing the biomass to feast and famine conditions and, after exposing the biomass to famine conditions, stimulating the biomass into a period of feast by exposing the biomass to feast conditions for a selected period of time by applying an average peak stimulating RBCOD feeding rate of greater than 5 mg-COD\L\MIN in combination with an average peak specific RBCOD feeding rate greater than 0.5 mg-COD\g-VSS\MIN. In another example, the PHA accumulation potential of the biomass is enhanced by subjecting the biomass to feast conditions that cause the biomass to reach a peak respiration rate that is at least 40% of the extant maximum respiration rate of the biomass. Other processes are discussed that can contribute to enhancing PHA accumulation potential of biomass.

IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

See references of WO 2012023114A1

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